LETTERS TO THE EDITOR

Alternative and complementary medicine for asthma

Readers of the review by Dr J Lane and TV Lane (November 1991;46:787–97) might conclude that hypnosis has little to offer asthmatic patients. Although the report of Ewer and Stewart1 is quoted as showing improvement in symptom scores and some peak expiratory flow rates and decreased use of bronchodilators, no mention is made of a 74.9% improvement (p < 0.01) in the degree of bronchial hyperresponsiveness to a standardised methacholine challenge test. These authors state that “while our hypnotic technique does not eliminate bronchial hyperresponsiveness it does provide a clinically useful and non-toxic adjuvant to drug treatments that might benefit about half of the asthmatic population.” This approach could well reduce the use of the toxic drugs, such as troleandomycin, gold, azathioprine, and methotrexate, mentioned by Shiner and Geddes.2 The British Tuberculosis Association’s study3 did not report negative results as stated in the review. On the contrary, “independent clinical assessors considered the asthma to be much better in 59% of the hypnosis groups and in 43% of the control group, the difference being significant.” These results were obtained by using only direct suggestion units, hypnosis plus autohypnosis; more advanced methods, such as reciprocal inhibition, were not used.

In my own study2 it was possible to withdraw oral prednisolone or to reduce the dose in 14 of the 16 patients treated by hypnosis. The number of hospital admissions during the first year of hypnotherapy fell to 13, compared with 44 during the previous year. This represented a reduction of 249 hospital days, which, at 1986 costs (£170 per day), saved the NHS £24 330. As some 55 000 adults are admitted each year for asthma, savings to the NHS could be considerable if hypnotherapy were to be used more widely.

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We read the editorial entitled “Alternative and complementary medicine for asthma” by Dr DJ Lane and TV Lane (November 1991; 46:787–97) with interest. Patients suffering from asthma often demand complete relief of their symptoms and therefore are not fully satisfied with present medications, which although highly effective are not curative. We have also observed an interest in alternative medicine among asthmatic patients in Turkey. We summarise the findings of our investigation both on the attitude towards “alternative” treatment and on the previous therapy practices of asthmatic patients who presented to the outpatient clinic of the Department of Chest Diseases, Hacettepe University School of Medicine, Ankara, during 1991.

Of the 205 patients who were included in this study, 92 (45%) reported that they had either tried or were still using one or more of the alternative therapies recommended for asthma. Herbal medicine, (48), speleotherapy (treatment based on visits to caves: 10), wearing bracelets (6), Turkish baths (5), rubies, vaccine (3), and syrups containing various trace elements (3) had been used by these patients. Acupuncture was practised by only two patients; and other methods, such as yoga, hypnosis, and homeopathy, were not used by any.

We have collected 33 different prescriptions for herbal medicine from 48 patients. Numerous types of plants, leaves of trees, fruits, plant roots, and spices have been used either alone or in combination, usually mixed with honey. The benefit to the patient is questionable, they are regarded as harmless except for one containing cleaner. Quail eggs, the only animal derived protein in these prescriptions, had been used by almost half of the patients.

Speleotherapy, the second most commonly used method, is used not only in Turkey but also in centres in Hungary, Poland, Czechoslovakia, Switzerland, and Italy.

Though there have been international meetings and an increasing number of articles on speleotherapy, there have been few controlled studies.4 Some articles have discussed the temperature, humidity, volume, electrical characteristics, types of air flow, and gas content of the indoor environment, but no objective benefit of speleotherapy has been documented.1 Ten patients in our study group visited Damlatas cave in the south of Turkey for three to four weeks in the summer, and all stated that they had felt comfortable for several months after this exposure, being able to decrease their bronchodilator drug dosage. Further controlled and objective studies are needed on this subject.

Speleotherapy and Turkish baths are two methods of alternative medicine that have not previously been mentioned in published reports. The “bracelet” epidemic spread from south east Asia to Turkey, and asthmatic patients as well as those with rheumatological problems began using bracelets. Six patients in the study group were wearing bracelets for the relief of their pulmonary symptoms.

Alternative medicine has emerged as a consequence of consumer dissatisfaction with both the toxicity and expense of conventional medicine and the public interest in alternative medicine will diminish in time with both progress in research for more efficient treatments and the realisation by patients of the effectiveness of conventional treatment.

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Air pollution and respiratory morbidity

We read with interest the article by Dr J Britton (May 1992;47:391–2). This raises a number of important points but perpetuates confusion over EC limit values, EC guide values, and WHO air quality guidelines; this confusion is perpetuated by the recent paper of Sunyer et al1 to which Dr Britton refers.

EC limit values and guide values are often expressed in terms of percentiles, with which individual measurements should not be compared. For example, the EC limit value for

Author's reply
We thank Dr Morrison for his interest in our article. On the question of bronchial hyperresponsiveness, he seems to have missed our discussion of this on page 794. The changes recorded by Ewer and Stewart, though significant statistically, are unlikely to make much difference clinically. We know of no work on the use of hypnosis in the sort of chronic persistent asthma that might be treated with the “toxic drugs” he mentions.

Perhaps we were unfair to dismiss the British Tuberculosis Association’s study of 1968 as producing “negative results.” In fact, the details of the recorded wheezing score, use of bronchodilators, and forced expiratory volume, divided by sex (their table IV), showed a difference between treated and control groups only for wheezing score in females (that is, five out of six comparisons showed no difference). The paper gives no details of other methods used for the independent clinical assessments other than that they “were made by a physician unaware of the patient’s treatment.”

Dr Morrison’s own study gave impressive results, but it is a pity that the comparative control period had to be retrospective. Careful attention to many aspects of the care of asthmatic patients can produce a reduction in corticosteroid treatment and admissions. As we stated in our review, if hypnosis is to be advocated as a means of obtaining these ends there is a need to establish both a reliable method of selection and to ensure that patients likely to be susceptible to hypnosis and a standardised form of treatment acceptable to patients over long periods.

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nitrogen dioxide is defined as: “The 98th percentile of hourly means should not exceed 104 6 ppb.” The underlying reason for specifying an upper percentile rather than an absolute limit is that extreme values are liable to be erratic, occurring in a highly local or transient manner or even as a result of instrument malfunction. In one year there were 8760 hours, the 98th percentile of hourly means is the 8760th highest hourly mean measured. Only if this exceeds 104 6 ppb is the relevant ED directive contravened. The limit value, designed to safeguard the body with regard to exposure to nitrogen dioxide, was set with knowledge of the likely log-normal distribution of hourly mean concentrations. Though hourly means could exceed 104 6 ppb on 175 occasions per year, with occasional maxima up to three or four times that value, damage to health would not be expected.

In discussing WHO air quality guidelines for sulphur dioxide and smoke Dr Britton fails to point out that legacy factors of 2 X 3 4 or more effects on morbidity and mortality and of 1 5 or more for decrements of lung function were included when the guidelines for combined exposure to sulphur dioxide and particulate matter were defined. It should also be noted that the data on which the joint guideline was defined did not permit separation of sulphur dioxide and black smoke in terms of effects; it would thus be most misleading to specify the number of days when the joint guidelines were exceeded than each one separately. Furthermore, WHO guidelines for black smoke have not been defined on an hourly basis and the 24 hour guideline is not currently defined as 125 µg/m³ rather than 100 µg/m³. The figure of 100 µg/m³ occurs in the World Health Organisation report of 1979. In that report a range of 100–150 µg/m³ was recommended.

The above are the opinions of the authors and should not be taken as representing those of the Department of Health.

AUTHOR’S REPLY I thank Drs Maynard and Waller for their comments on my article, and their clarification of the various guidelines and limits on atmospheric pollution levels. I suspect that I am not alone in finding them a little confusing. The point I wanted to make in the article is that the study by Sunyer et al (their ref 1) everyday variations in usual levels of atmospheric pollution had small but measurable respiratory morbidity. The vast majority of this variation was well within all of the guidelines and limits. We need guidelines for monitoring and enforcing pollution controls, but if there was any doubt about it not being evident that pollution that does not contravene existing guidelines still causes respiratory morbidity. The question is whether this degree of morbidity is an acceptable or necessary price to pay for economic development and, if it is, how much society should be prepared to accept.

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Pulmonary function in chronic renal failure: effects of dialysis and transplantation

In their article (June 1991;46:424–8) Drs A Bush and R Gabriel referred to decreased carbon monoxide transfer (TLco) in four groups of patients with chronic renal failure. Apparently, their TLco values were corrected for haemoglobin, which was low in most of their patients. Thus the decreased TLco should be attributed to the other than a low haemoglobin pool. The authors speculated that it was due to interstitial lung fibrosis, caused by chronic subclinical oedema.

These authors results differ from those of others. TLco is usually reduced in uremic patients because of coexisting anaemia; adjusting to a normal haemoglobin concentration therefore produces normal TLco values. In the population they studied, however, the underlying cause could not be determined from their data. Interstitial fibrosis with resulting deterioration of the membrane TLco component (Dm) is the only possible factor. The authors did not perform chest radiography, which could have helped to resolve the issue. Moreover, there are even more sensitive tools for such evaluation—specifically high resolution computed tomography and a separate determination of Dm and the vascular component of the TLco: pulmonary capillary blood volume (Vc) and the reaction rate of carbon monoxide with haemoglobin (theta, θ). According to the theory of Roughton and Forster—expressed as 1/TLco = 1/Dm + 1/Vcθ—a decrease with increased haemoglobin. Without measuring the components of TLco therefore, even after adjustment for haemoglobin, one cannot determine whether Dm or Vc predominantly affects the overall TLco. There are also reports that haemodialysis (their group 3) per se affects TLco, which was not considered by the authors. In the sample, we studied the effect of haemodialysis was a reduction in TLco of about 10%, due entirely to a decrease in Vc of about 20%, which we attributed to a decrease in blood volume with consequent reduction in Vc.

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We agree that the pathological cause of renal anemia is not always clear. We also agree that it may be difficult to determine whether this is due to the anemia or to the uremia, but this does not mitigate against establishing the underlying reason for the anemia. Our recent study (1991;58:277–81) showed that the level of haemoglobin is significantly reduced in patients with chronic renal failure. This is consistent with the findings of other authors, who have also reported a reduced TLco even after correction for the anemia. We agree that the findings of other workers (2) not cited in our own paper. We agree that the pathological cause of renal anemia is not always clear. We also agree that it may be difficult to determine whether this is due to the anemia or to the uremia, but this does not mitigate against establishing the underlying reason for the anemia.

A BUSH

AUTHOR’S REPLY I thank Professor Dujic and colleagues for their interest in our paper and for raising some interesting points. Our findings of a reduced TLco even after correction for the anemia are in accord with the findings of other workers (2) not cited in our own paper. We agree that the pathological cause of renal anemia is not always clear. We also agree that it may be difficult to determine whether this is due to the anemia or to the uremia, but this does not mitigate against establishing the underlying reason for the anemia.

A BUSH


Haematological effects of inhalation of N-formyl-methionyl-leucyl-phenylalanine in man

We read with interest the description by Dr M Peters and colleagues (April 1992;47:2846–51) of the transient hyporegenerative anaemia, in particular neutropenia, immediately following the inhalation of the tripeptide N-formyl-methionyl-leucyl-phenylalanine (FMLP) in normal subjects, accompanied by activation of peripheral blood neutrophils as measured by chemiluminescence.

We agree that the likely mechanism is...
Air pollution and respiratory morbidity.

R L Maynard and R E Waller

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